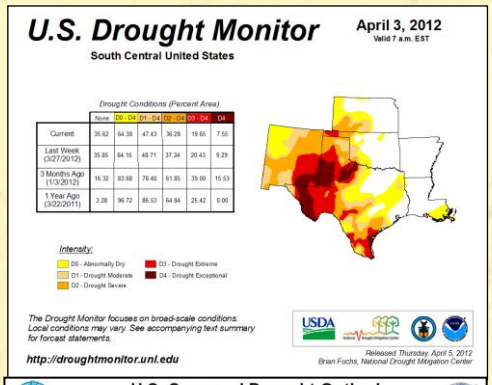
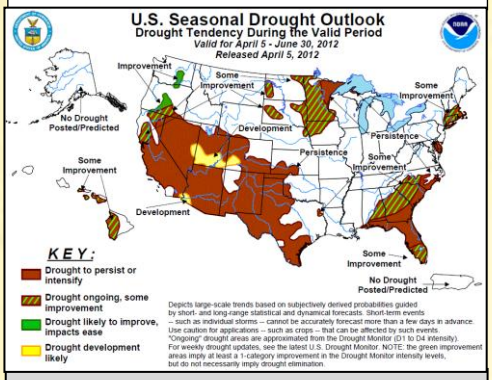
MANAGING DROUGHT IN THE SOUTHERN PLAINS

Webinar Topic: Wildlife Management During Drought
April 12, 2012





Resources

U.S. Drought Portal
http://www.drought.gov

National Drought Mitigation Center
http://drought.unl.edu

Drought Impact Reporter
http://droughtreporter.unl.edu

State Climatologists
http://www.stateclimate.org

Southern Climate Impacts Planning Program (SCIPP)
http://www.southernclimate.org

Climate Assessment for the Southwest (CLIMAS)
http://www.climas.arizona.edu

Southern Plains Portal
http://www.drought.gov/portal/server.pt/community/southern_plains

Regional Drought Summary

Victor Murphy, National Weather Service

Continued improvement in most of Oklahoma and east Texas was good news. Texas, east of I-45, is now drought-free. But the areas which don't usually get much rain this time of year have yet to shake the drought, including the Panhandles, southwest Oklahoma, and southeast New Mexico. D4 is gone from Oklahoma, a vast improvement from the 66% of the state that was in D4 on October 1. For the last six months, all of Oklahoma and much of Texas, particularly east, are above-normal for rainfall. South Texas and west Texas have improved but are still below-normal.

The next five days look like a continuation of the pattern. Areas that have gotten rainfall are expected to get more, while those that missed the winter rains will remain dry. South Texas may get over an inch of rain. A dry pattern is expected to continue the following week in the west and northwest part of the region. Above-normal temperatures are contributing to anomalously high evaporation rates.

The long-range outlook pretty much mirrors the near-term forecast. The rest of April looks dry in the west and warm throughout. Going through June, there are about equal chances of above, near, or below-normal rainfall. The current drought pattern is expected to persist through June.

La Niña is weakening dramatically. The probability of another La Niña is low for the summer and increases slightly later in the year. But the pattern may switch to El Niño or neutral conditions. Odds are about two-to-one in favor of El Niño or neutral conditions compared to La Niña. If El Niño develops, that usually relates to above-normal rainfall in Texas and New Mexico, however in the shorter-term El Niño tends to suppress tropical activity and with it associated heavy rainfall.

Texas Drought Coordination Calls

The Texas State Climatologist, John Nielsen-Gammon, has started weekly coordination calls to provide coordinated input to the Drought Monitor authors. It provides opportunities to discuss contrasting conditions, such as near-normal rainfall not showing up in reservoir levels. Calls are Mondays at 1:00 central time. Contact n-g@tamu.edu to participate.

Reporting local drought conditions is vital to helping the Drought Monitor authors properly depict areas of concern. Reports could be simply things you notice or it could be specific losses, such as crops withering, selling cattle, or wildlife changes. There are several ways you can be a part of the process:

- Adding to the Drought Impact Reporter
- Contacting your State Climatologist
- E-mailing the Drought Monitor Authors at: droughtmonitor@unl.edu

Wildlife Management During Drought

Presenters:
Bill Bartush – US Fish & Wildlife Southwest Region
Mitch Sternberg – South Texas Refuge Complex
Todd Merendino – Ducks Unlimited Texas Field Office

To improve management of natural lands, the Department of Interior created a set of Landscape Conservation Cooperatives. (LCCs). The LCCs are designed along ecoregion boundaries, requiring partners to work across traditional state and federal administrative boundaries. They base their collective efforts on sound science, become more strategic in our conservation delivery efforts to meet some of the greater challenges we face today, whether climate change, weather, or other stressors like population growth. By working together they are able to share their time, treasure and talent to stretch precious resources farther. Each of the 21 LCCs sets their own regional priorities but use a similar approach, working with an adaptive management strategy that focuses on biological planning and conservation design with our partners and then monitoring that design over time.

The Gulf Coast Prairie LCC is a collaboration among several federal agencies, including NOAA, U.S. Fish and Wildlife Service, 5 states and Mexico. It also includes a number of private partners and non-governmental organizations, including 2 Fish Habitat Partnerships, 3 migratory bird Joint Ventures, USGS and NOAA shared positions, and strong relationships to the National Wetland Research Center, Cooperative Environmental Studies Unit at Texas A&M and Wildlife Management Institute. It encompasses 3 ecological region that are quite dverse and includes one of the most rapidly-growing populations in any region of the U.S. The Gulf Coast Prairie LCC was established in 2010 and is overseen by a steering committee to set priorities. Although they take a long-term look at management challenges, events like the drought, fires, and water shortages pose more immedate challenges with which the partners contend.

The South Texas wildlife management refuges has more wildlife diversity than any other state except Texas and Arizona as a whole. The refuges are located in a transition zne from subtropical to arid. On the west side, habitat clearing was in full-force by the 1930s and relatively few native brushland habitats are left. With transition from brushland to buffalo grass, fire, which is not very natural to the region, has increased. The area is home to many species of birds, federally-endangered ocelots, white-tailed deer and coyotes. Antelope and feral hogs are invasive species, moving into the area and crowding out resources needed to sustain native populations. Other challenges are population growth and border control issues. More ocelots are killed by vehicle strikes than from any other cause.

Drought concerns emerged in the 1990s and peaked in 2003, when the Rio Grande did not even reach to the Gulf of Mexico and Laguna Madre went dry after 18 months with no rain. Learning from this experience, 14 rain catchments, called guzzlers, were installed to provide fresh water for all wildlife. Guzzlers use a pitched roof to catch water in a 600 gallon tank, which is fed down to the drinker bya pipe. Cameras were installed to monitor wildlife coming to the guzzlers. Each time an animal comes to drink, a picture is taken. Typically about 3,500 photos were captured per month; it is now up to 5-6,000 per month. It was discovered that hogs were setting up camp around these drinkers and preventing other wildlife from using them. Fences were set up around the perimeter with smaller cutouts, allowing smaller animals like ocelots to get through while keeping out the larger hogs and antelopes. Visit http://www.friendsofsouthtexasrefuges.org to learn more.

The drought is taking its toll on waterfowl as well. The drought has accelerated already gradual decline of snow geese in Texas. At the mid-December count last year, 200,000 snow geese were counted compared to an average of 400,000-600,000 in other years. Duck populations are down 9% for the state overall, but with large regional differences. The Panhandle and south Texas were down more than 90% while in east Texas counts were 173% of normal. The rainfall since mid-December has been extremely beneficial, especially in east Texas with grass and flowers blooming. Reservoirs are 80-85% full in the east, about half-full in central and even lower in the West. Drought over the years has dried Lake Meridith in the Panhandle and caused the loss of ½-billion trees in east Texas with associated impacts on wildlife.

By 2025, projections show a potential water supply crisis along the Texas Gulf Coast, but with the drought we may already be there. A projected doubling of Texas' population in the next 40 years, from 25 to 50 million people, will stretch surface water demands that are already at capacity. As an example, the Lower Colorado River Authority will not release irrigation water from the depleted highland lakes that feed lower parts of the basin; with the lakes sitting about 35% of capacity there just is not enough water. As a consequence, there will be 400,000 fewer acres of rice planted. Last year ducks did fairly well, but without the rice fields they are sure to feel the delayed effects of the drought this coming year.